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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/824,725

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Rajiv Goel

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EXAMINER

AVELLINO, JOSEPH E

ART UNIT

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2146

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/824,725	Applicant(s) GOEL ET AL.	
	Examiner Joseph E. Avellino	Art Unit 2146	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/26/04, 3/8/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-24 are presented for examination; claims 1, 11-13, 23, and 24 independent.

Information Disclosure Statement

2. The IDS's dated July 26, 2004 and March 8, 2007 have been considered. See enclosed PTO-1449.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 13-23 are rejected under 35 U.S.C. 101 because they fail to establish a statutory category of invention.

4. Referring to claims 13-22, the "computer-readable medium" as claimed can be interpreted as transmission media (specification, ¶ 86). As such, transmission media fails to establish a statutory category of invention.

5. Referring to claim 23, this is an apparatus comprising means for language. As such, the means can reasonably be construed as software alone (¶ 85). As such, the apparatus is a mere interrelationship of software elements, and therefore the apparatus fails to establish a statutory category of invention.

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6. Claims 1, 4-11, 13, and 16-24 are rejected under 35 U.S.C. 101 because they fail provide a useful, concrete, and tangible result.

7. Referring to exemplary claim 1, the method will select two numbers between zero and one, and install an encapsulation chain and decapsulation chain based on the two numbers, however if both zeros are selected, then nothing is done, and therefore the method as claimed does nothing, and therefore fails to provide a useful and tangible result. Numerous "if" statements were used in various claims in the application, and various embodiments of the claim (i.e. whether the "if" statement is executed or not) does not provide a useful and tangible result to the whole of the claim. Correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5, 6, 13, 17, 18, 23, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicants Admitted Prior Art (Specification, pages 1-6) (hereinafter AAPA).

9. Referring to claim 1, AAPA discloses a method of creating chains on a network element (the phrase “for a virtual interface” is a statement of intended use and holds no patentable weight for the claim), the method comprising:

selecting a first number between zero and one, selecting a second number between zero and one, creating on a network element as many encapsulation chains as indicated by the first number, and creating on a network element as many decapsulation chains as indicated by the second number (i.e. installing a separate encapsulation chain and separate decapsulation chain for each virtual interface) (p. 5, ¶ 12).

10. Referring to claim 5, AAPA discloses determining if a physical port is configured to send packets of a type that would be produced by an encapsulation chain, then setting the first number to be one (¶ 12).

11. Claim 6 is rejected for similar reasons as stated above (similar rationale for a decapsulation chain as the encapsulation chain as provided above).

12. Claims 13, 17, 18, 23 and 24 are rejected for similar reasons as stated above.

Claims 1-3, 5, 6, 11-15, 17, 18, 23 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Conta et al. (US 2005/0086367) (hereinafter Conta).

13. Referring to claim 1, Conta discloses a method of selectively creating chains for a virtual interface (i.e. tunnel interfaces), the method comprising:

selecting a two numbers between zero and one, and implementing as many encapsulating chains and decapsulation chains on particular network elements as indicated by the first and second numbers (i.e. the transmit interface for the tunnel instantiates encapsulation engine 21, 23, 25, 27; the tunnel termination interface for the tunnel instantiates decapsulation engines 61 and 63) (Figures 2-3; ¶ 54-69).

14. Referring to claims 2 and 3, Conta discloses the transmit interface only has an encapsulation chain created, and the termination interface only has a decapsulation chain created (Figures 2 and 3).

15. Referring to claim 5, Conta discloses that if the physical port does not transmit any packets of a particular type, does not create the encapsulation chain (i.e. the tunnel termination interface does not create an encapsulation engine, only creates a decapsulation engine) (Figure 3).

16. Referring to claim 6, Conta discloses that if the physical port does not receive any packets of a particular type, then not creating a decapsulation chain (i.e. the tunnel

transmission interface does not receive any packets and therefore does not create a decapsulation engine) (Figure 2).

17. Claim 11 is rejected for similar reasons as stated above.

18. Referring to claim 12, Conta discloses the invention as described above. Conta further discloses conversion between a first cards that conform to a first protocol, and a second card that conforms to a second protocol, and creating encapsulation chains and decapsulation chains on only those cards which conform to the first and second protocols (i.e. the tunnel transmission interface encapsulates the PPP interface packets into L2TP packets and then sends them to the IP or L2 interface; receiving interface decapsulates MPLS packets into IP packets) (Figures 4 and 5).

19. Claims 13-15, 17, 18, 23 and 24 are rejected for similar reasons as stated above.

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conta.

21. Referring to claim 10, Conta discloses the invention as described above. Conta does not specifically disclose that the numbers are set by user input, however user input is well known in the art (i.e. network administrators selecting which elements to execute which particular programs, etc.). By this rationale, "Official Notice" is taken that both the concepts and advantages of providing for user input is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to modify Conta to have a user select which particular devices have which particular engines in order to tailor the network to the particular administrator's liking.

22. Claim 22 is rejected for similar reasons as stated above.

Claims 4, 7-9, and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conta in view of Tuniman et al. (USPN 6,507,874) (hereinafter Tuniman).

23. Referring to claim 4, Conta discloses the invention as described in claim 1. Conta does not disclose that neither a decapsulation chain nor an encapsulation chain is created on the particular network element. IN analogous art, Tuniman discloses another network interface device which discloses a plurality of network cards which perform specialized processing with respect to inputted data (Figure 7) and therefore do not create a particular encapsulation/decapsulation chain on the particular element,

rather this processing is done by specialized translators (e.g. abstract). It would have been obvious to one of ordinary skill in the art to combine the teaching of Tuniman with Conta in order to offload processing of various processes to specialized processors, thereby reducing overhead processing with respect to the network element.

24. Claims 7-9, and 16-21 are rejected for similar reasons as stated above.

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph E. Avellino/
Primary Examiner, Art Unit 2146